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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,363	09/25/2003	Kouji Yokouchi	2091-0290P	3356
2292 7590 04/05/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER HUNG, YUBIN	
			ART UNIT	PAPER NUMBER
			2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/05/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/669,363	Applicant(s) YOKOUCHI, KOUJI	
	Examiner Yubin Hung	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/25/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In addition, the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), ANNEX IV, partly reads as follows:

First paragraph

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structure and computer programs which impart functionality when employed as a computer component, ...

Second paragraph

Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. ...

Section (a), second paragraph, beginning at line 7

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowery, 32 F.3d at 1583-84, 32 USPQ2d at 1035. ...

2. Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter as follows. Claims 13-18 are directed to a program. Since the program is not necessarily a computer program and is not stored in

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a computer-readable medium, the inventions of claims 31-18 are not statutory subject matter.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 6, 7 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Herzig et al. (US 6,594,503).

5. Regarding claim 7, Herzig discloses an image processing apparatus [Fig. 2, ref. 141; Col. 2, lines 46-53] comprising

- input means for receiving an input of a text image data set representing a text image obtained by photography of a text medium on which characters are written [Fig. 2, refs. 101 (text medium), 120 (photographing device), 140 (processor, considered the character recognition means), 151 ('Tx,' transmitter), 155 (text image data); Col. 2, lines 46-53; Col. 3, lines 20-25 (sending data 155 to processor 140). Note that the existence of an input means is inherent, since otherwise the processor 140 cannot receive the transmitted text image data]
- character recognition means for obtaining a character code data set by converting the characters included in the text image into codes through character recognition processing on the text image

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[Fig. 2, refs. 140 (processor, considered the character recognition means), 145 (character code data set); Col. 3, lines 23-25]

- data set output means for outputting the character code data set [Fig. 2, refs. 140 (processor, considered the character recognition means), 'Rx' (receiver), 145 (character code data set); Col. 3, lines 20-25 (sending data 145 to receiver in communication device 100). Note that the existence of a data set output means is inherent, since otherwise the processor 140 cannot send character code data set to the communication device 100 via its receiver 'Rx']

6. Regarding claim 12, note that similar to the analysis of claim 7 (regarding the input and the output means), the existence of a communication means for receiving and sending data is inherent [see the communication link between the apparatus (Fig. 2, ref. 141) and a camera-embedded mobile terminal (Fig. 2, ref. 100 and Col. 2, lines 6-13 & 45-55) shown in Fig. 2.]

7. Regarding claims 1 and 6, note that they are the corresponding method claims of claims 7 and 12 and per the analysis of claims 7 and 12 above Herzig discloses all of their respective limitations.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herzig et al. (US 6,594,503) as applied to claims 1, 6, 7 and 12 above, and further in view of Fähræus et al. (US 6,529,645).

10. Regarding claim 8, Herzig discloses all limitations of its parent claim 7.

Fähræus further discloses

- composition means for obtaining the text image data set through generation of a composite image from partial text image data sets obtained by partially photographing the text medium while dividing the text medium into parts
[Fig. 2, ref. 20 & Col. 7, lines 57-59 (composition means); Fig. 3, refs. 301 & 302 and Col. 6, lines 36-49 (generating composite image); Fig. 4b (partial text images of corresponding parts from dividing text medium shown in Fig. 4a) and Col. 8 lines 2-5]

Herzig and Fähræus are combinable because they both have aspects that are from the same field of endeavor of image acquisition.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Herzig with the teachings of Fähræus as recited above and the motivation would have been to be able to scan and OCR text lines without the aid of a distance meter and with no requirement of a constant speed movement, as Fähræus indicates in Col. 1, lines 39-56 and Col. 2, lines 36-41.

Therefore it would have been obvious to combine Fähræus with Herzig to obtain the invention specified in claim 8.

11. Regarding claim 2, note that it is the corresponding method claim of claim 8 and per the analysis of claim 8 above the combined invention of Herzig and Fähræus discloses all of its limitations.

12. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herzig et al. (US 6,594,503) as applied to claims 1, 6, 7 and 12 above, and further in view of Faulkerson et al. (US 4,949,391).

13. Regarding claim 9, Herzig discloses all limitations of its parent claim 7.

Faulkerson further discloses

- cutting means for cutting predetermined frames from a moving image data set obtained by filming the text medium [Fig. 1, ref. 30 (cutting means) and Co. 13, lines 53-61, see also Figs. 8A-8C. Note that per Fig. 5, refs. 154, 160 and 162, since only frames captured between the two preset conditions (154 and 162) are processed and combined, those images are considered the predetermined frames (see also Col. 10, lines 44-62)]
- composition means for obtaining the text image data set through generation of a composite image from frame image data sets representing the predetermined frames cut by the cutting means [Fig. 1, ref. 50 (composition means), Col. 13, lines 49-53 and Col. 14, lines 54-62, see also Fig. 8D (the composite image)]

Herzig and Faulkerson are combinable because they both have aspects that are from the same field of endeavor of image acquisition.

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At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Herzig with the teachings of Faulkerson as recited above and the motivation would have been to eliminate redundant data, as Faulkerson indicates in Col. 1, lines 56-64.

Therefore it would have been obvious to combine Faulkerson with Herzig to obtain the invention specified in claim 9.

14. Regarding claim 3, note that it is the corresponding method claim of claim 9 and per the analysis of claim 9 above the combined invention of Herzig and Faulkerson discloses all of its limitations.

15. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herzig et al. (US 6,594,503) as applied to claims 1, 6, 7 and 12 above, and further in view of Kuwahara (US 6,363,255).

16. Regarding claim 10, Herzig discloses all limitations of its parent claim 7. In addition, Herzig also discloses having a storage unit for a character recognition processor [Fig. 2, refs. 130 (OCR processor) & 135 (storage means); Col. 2, lines 58-60].

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Therefore it would have been obvious also to have a storage means for the external OCR processor [Fig. 2, ref. 140; Col. 2, lines 48-49] of the text image processing apparatus to store data such as text image data set. The motivation would have been to have the data available so that character recognition can be applied [Fig. 2, refs. 100, 145 (OCR result) & 155 (text image data); Col. 3, lines 20-41] when the OCR processor [Fig. 2, ref. 140] becomes available.

Kuwahara further discloses

- link information generation means for generating link information representing where the text image data set is stored, wherein the output means outputs the link information together with the character code data set [Fig. 6 (message from base station containing base station ID, or link information); Col. 5, lines 50-53; Col. 8, lines 34-37. Note that for the message to include the base station ID the base station necessarily has to have a means to generate that ID. Note further that per the analysis of claim 7 the character code data is output from the output means]

Herzig and Kuwahara are combinable because they both have aspects that are from the same field of endeavor of mobile communication.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Herzig with the teachings of Kuwahara as recited above (having a means for the base station disclosed in Herzig to generate link information to output) and the motivation would have been to be able to identify the sending base station, as Kuwahara indicates in Col. 5, lines 50-52 and Col. 14, lines 18-22.

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Therefore it would have been obvious to combine Kuwahara with Herzig to obtain the invention specified in claim 10.

17. Regarding claim 4, note that it is the corresponding method claim of claim 10 and per the analysis of claim 10 above the combined invention of Herzig and Faulkerson discloses all of its limitations.

18. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herzig et al. (US 6,594,503) as applied to claims 1, 6, 7 and 12 above, and further in view of Lazar (US 2000/0156827).

19. Regarding claim 11, Herzig discloses all limitations of its parent claim 7. In addition, Herzig further discloses a means for converting text to voice and play it via the speakers of the communication device for confirmation [Fig. 8, refs. 100 & 161 and Col. 4, lines 45-61]. Herzig does not expressly disclose that text-to-voice conversion is performed at the text image processing apparatus (the base station of Herzig's Fig. 2, ref. 141 in this case).

However Lazar discloses converting text (character code data) to voice at the place where OCR is performed [Fig. 1, ref. 14 (CMSE) and P. 4, paragraph 75, lines 13-17]

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and send the voice data (via some output means) to a communication device (e.g., a cellular phone) [Fig. 8, refs. 86 & 87; P. 7, paragraph 115, lines 1-3]

Herzig and Lazar are combinable because they both have aspects that are from the same fields of endeavor of image acquisition and character recognition.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Herzig with the teachings of Lazar by having text-to-voice conversion performed at the base station. The motivation would obviously have been to provide additional functionality (i.e., text-to-voice conversion) to the communication device of Herzig (e.g., a cell phone) without adding cost to it and therefore makes it a more competitive product.

Therefore it would have been obvious to combine Lazar with Herzig to obtain the invention specified in claim 11.

20. Regarding claim 5, note that it is the corresponding method claim of claim 11 and per the analysis of claim 11 above the combined invention of Herzig and Lazar discloses all of its limitations.

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21. Regarding claims 13-18, note that per the analyses of their respective apparatus claims 7-12 above the methods to be performed by their respective programs have been disclosed. In addition, Fujino et al. (US 6,826,317) discloses using computer-readable program on a recording medium which, when executed by a computer, carries the desired steps [Col. 14, claim 12]. Therefore it would have been obvious to also have programs for causing a computer to execute the various text image processing methods as specified in claims 13-17. The motivation would have been to have the methods performed by a computer to realize their intended purposes since a method by itself accomplishes nothing.

Conclusion and Contact Information

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Butterworth (US 2003/0169923) [Figs. 3-6], Kagehiro et al. (US 7,190,823) [Figs. 1, 2, 5] Aarnio (US 6,522,889) [Figs. 1-4] and Horii et al. (US 2002/0058536) [Figs. 1A, 6A, 7A] all disclose acquiring text image with camera on a mobile phone for OCR

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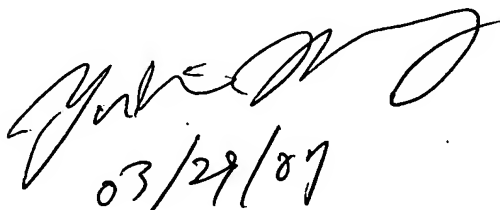
- Togashi et al. (US 2002/0012468) [Figs. 3, 4] and Dance et al. (US 6,512,539) Figs. 1-3] both disclose combining multiple images acquired from the same page of a document for subsequent OCR
- Kredo et al. (US 6,876,728) [Figs. 1, 6] discloses converting text to voice at a server before sending the voice data to a cell phone

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



03/29/07

Yubin Hung
Patent Examiner
Art Unit 2624
March 29, 2007